

Amendments to the Specification:

Please insert the following paragraphs beginning at page 15, line 7:

FIG. 24C illustrates exemplary arrangements of separation processes.

FIG. 24D illustrates a number of specific subgroupings of processes.

Please replace the paragraph beginning at page 15, line 33 with the following amended paragraph:

FIG. ~~37~~ 38 is a graph shows the size distributions by thickness for fractions of exemplary light and heavy plastic material after granulation.

Please replace the paragraph beginning at page 64, line 10 with the following amended paragraph:

A mixture of plastic granulated to pass an 8 mm screen was separated in an air-leg separator into heavy (H) and light (L) fractions. Figure ~~37~~ 38 shows the thickness distribution of the L and H fractions. Since the size distributions for the two streams are similar, it is clear that the L material has a larger average surface to mass ratio.

Please replace the paragraph beginning at page 72, line 3 with the following amended paragraph:

The properties of the two products are superior to those of ABS that has not been separated by surface to mass prior to TES. There is also a significant difference in the MFR FIG. ~~38~~ 39 shows the MFR as a function of composition for various compounds of the L and H ABS products. This figure demonstrates that such recombination can be done to formulate a desired MFR for the product as long as it lies between 7.5 and 16.4 g/10 min.

Please replace the paragraph beginning at page 72, line 15 with the following amended paragraph:

FIG. ~~39~~ 40 shows the % Br in the PS product as a function of the feed composition for SPDS, DPDS and when a third density separation stage is included after DPDS. It is assumed

that the FR contains 10% Br. For the separation parameters in Table 27, the amount of Br in the PS product decreases by an order of magnitude for each additional stage of density separation. FIG. ~~39~~ 40 also shows that the use of two or more stages allows for adequate separation over a broad range of feed compositions.

Please replace the paragraph beginning at page 73, line 29 with the following amended paragraph:

If the mixture shown in FIG. ~~40~~ 41 is separated using the process flow described by FIGS. ~~[[41-44]]~~ 42-44 with typical separation parameters, yields shown in FIG. 45 and compositions shown in Table 28 are predicted.

Please delete the paragraph beginning at page 16, line 1:

~~FIG. 38 illustrates melt flow rate as a function of composition for various exemplary compounds of light and heavy ABS products.~~